

Item No. 69**TOWN OF LAUDERDALE-BY-THE-SEA****AGENDA ITEM REQUEST FORM****Chen & Associates**

Department Submitting Request

**Town Engineer James Barton**

Dept Head's Signature

<u>Commission Meeting Dates</u>	<u>Last date to turn in to Town Clerk's Office</u>	<u>Commission Meeting Dates</u>	<u>Last date to turn in to Town Clerk's Office</u>	<u>Commission Meeting Dates</u>	<u>Last date to turn in to Town Clerk's Office</u>
<input type="checkbox"/> Nov 10, 2009	Oct. 30 (5:00 p.m.)	<input type="checkbox"/> Jan 26, 2010	Jan 15 (5:00 p.m.)	<input type="checkbox"/> March 23, 2010	Mar 12 (5:00 p.m.)
<input type="checkbox"/> Dec 1, 2009	Nov 20 (5:00 p.m.)	<input type="checkbox"/> Feb 9, 2010	Jan 29 (5:00 p.m.)	<input type="checkbox"/> April 13, 2010	April 2 (5:00p.m.)
<input type="checkbox"/> Dec 8, 2009	Nov 25 (5:00 p.m.)	<input type="checkbox"/> Feb 23, 2010	Feb 12 (5:00 p.m.)	<input checked="" type="checkbox"/> April 27, 2010	April 16 (5:00p.m.)
<input type="checkbox"/> Jan 12, 2010	Dec 31 (5:00 p.m.)	<input type="checkbox"/> Mar 4, 2010	Feb 19 (5:00p.m.)	<input type="checkbox"/> May 11, 2010	April 30 (5:00p.m.)

**NATURE OF  
AGENDA ITEM**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Presentation      | <input type="checkbox"/> Resolution     | <input type="checkbox"/> New Business      |
| <input checked="" type="checkbox"/> Report | <input type="checkbox"/> Ordinance      | <input type="checkbox"/> Manager's Report  |
| <input type="checkbox"/> Consent Agenda    | <input type="checkbox"/> Public Hearing | <input type="checkbox"/> Attorney's Report |
| <input type="checkbox"/> Bids              | <input type="checkbox"/> Old Business   | <input type="checkbox"/> Other             |

**EXPLANATION:** Stormwater Master Plan Final Report (Town Engineer James Barton)**STAFF RECOMMENDATION:****BOARD/COMMITTEE RECOMMENDATION:****FISCAL IMPACT AND APPROPRIATION OF FUNDS:**

- |   |  |
|---|--|
| <input type="checkbox"/> Amount \$ _____            | <input type="checkbox"/> Acct # _____  |
| <input type="checkbox"/> Transfer of funds required | <input type="checkbox"/> From Acct # _____   |
| <input type="checkbox"/> Bid                        | <input type="checkbox"/> Grant <input type="checkbox"/> Amount represents matching funds |

Town Attorney review required

☐ Yes ☒ NoTown Manager's Initials: JB

## June White

**From:** James H. Barton [jbarton@chenandassociates.com]  
**Sent:** Tuesday, April 20, 2010 6:08 PM  
**To:** John Olinzock  
**Cc:** June White; Peter Moore; Jason J. McClair  
**Subject:** RE: Stormwater Master Plan Final Report  
**Attachments:** SMP Key Findings.ppt

June,

Please find attached the presentation called

Stormwater Master Plan – Key Findings

This presentation will describe the details of the Stormwater Master Plan. The report is due and will be submitted the same day as the presentation. The presentation will be a guide for the Commission to understand the methodology and key recommendations described in the report.

Thanks  
 James

**James Barton, P.E.**  
 Senior Engineer  
 ESRI Authorized Trainer

**Chen and Associates**  
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 West Palm Beach, FL 33401  
 Phone: 561.746.6900  
 Mobile: 954.914.8488  
 Fax: 561.746.8333  
 Website: [www.chenandassociates.com](http://www.chenandassociates.com)  
*CE News Best Places to Work 2008 - "Highest Ranked Civil Engineering Firm in South Florida"*  
*South Florida Business Journal 2007 - "Best of Places to Work South Florida"*

**From:** John Olinzock [mailto:johno@lauderdalebythesea-fl.gov]  
**Sent:** Tuesday, April 20, 2010 11:22 AM  
**To:** James H. Barton  
**Cc:** June White  
**Subject:** Stormwater Master Plan Final Report

James,  
 June is preparing to publish agenda for 27 Apr 2010 commission meeting and needs the final report.

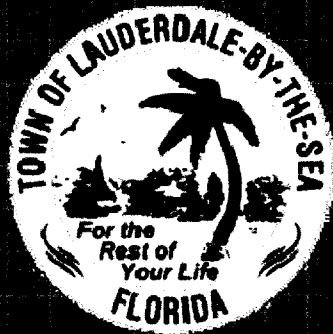
**John E. Olinzock**  
 Assistant Town Manager  
 Town of Lauderdale By-The-Sea  
 4501 Ocean Drive  
 Lauderdale By-The-Sea, FL 33308-3610  
 954-776-0576

4/21/2010

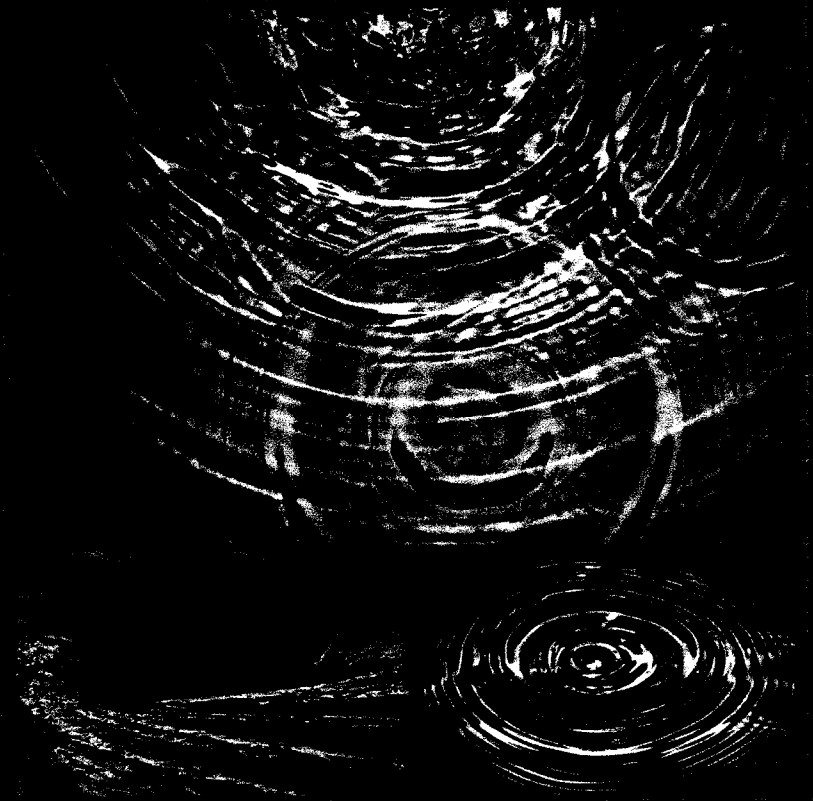
# STORMWATER MASTER PLAN

## KEY FINDINGS

Presented to Town of  
Lauderdale-By-The-Sea by  
Chen and Associates



CHEN



# **PRESENTATION OUTLINE**

- 1. INTRODUCTION**
- 2. DATA COLLECTION**
- 3. EVALUATION OF EXISTING DATA**
- 4. PROPOSED ALTERNATIVES FOR STORMWATER IMPROVEMENTS**
- 5. CONCLUSIONS**

# INTRODUCTION

# INTRODUCTION

- **Purpose**

- **Schedule**

**October 29, 2009 Purchase Order**

**January 8, 2010 Task 1**

**February 27, 2010 Task 2**

**April 10, 2010 Task 3**

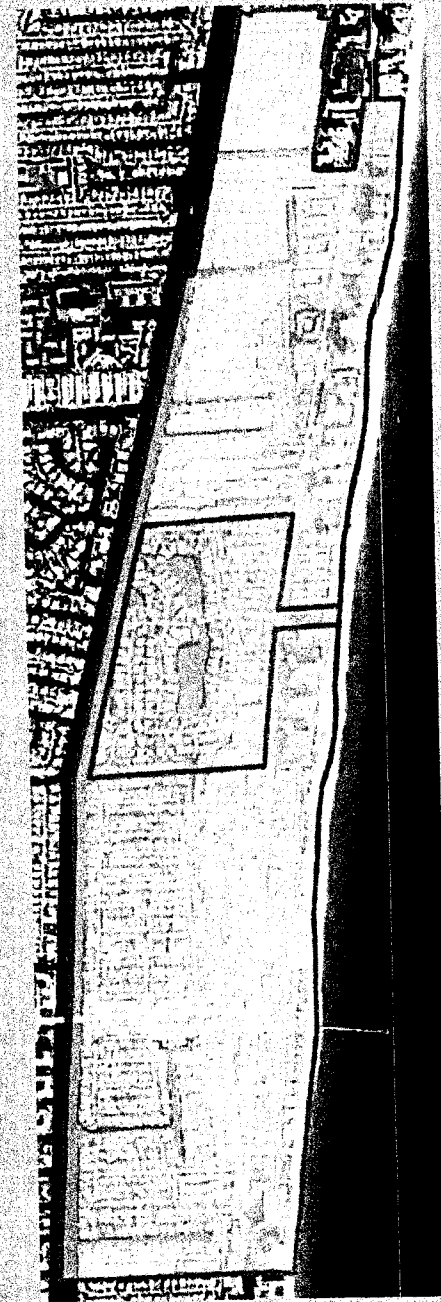
**May 5, 2010 Master Plan**

- **Team**

# DATA COLLECTION

# DATA COLLECTION

- **General**
- **Land Use**
- **Soils**
- **FloodPlain Elevations**
- **Topography**
- **Drainage Atlas**
- **Past Projects**
- **Property Research**
- **Easements**





# EVALUATION OF EXISTING DATA

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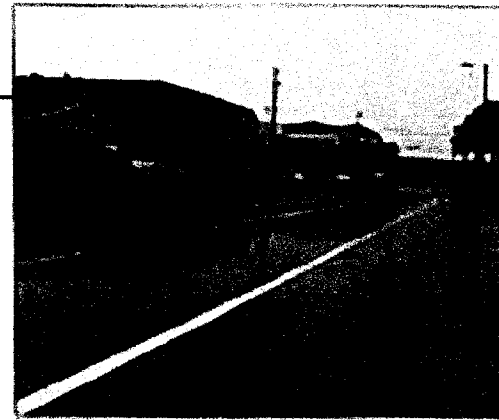
- **General Conditions**
- **System Assessment**

**Site Visits**

**Resident Complaints**

**Outfall Inventory**

**Pipe Inspection**



**Figure 3: Paved Shoulder**

# EVALUATION OF EXISTING DATA

- **Model Input Data**

Basins

Hydrologic Parameters

Links

Boundary Conditions

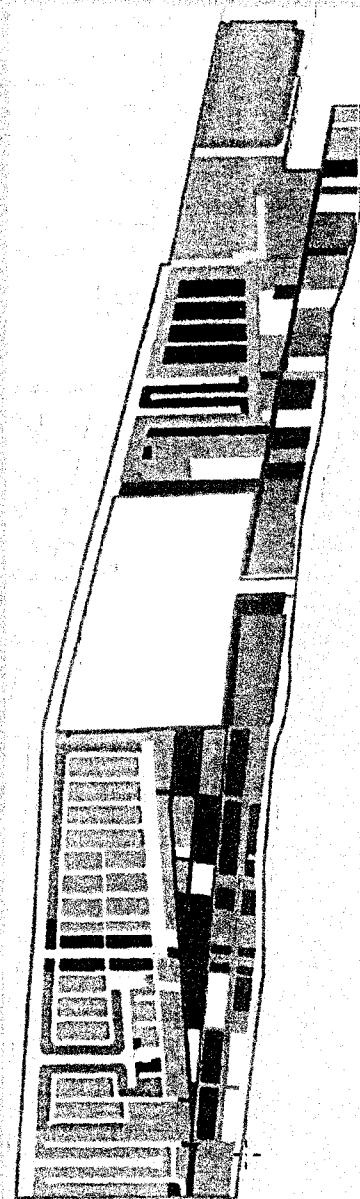
Rainfall

- **System Requirements**

Level of Service Criteria

Regulatory Requirements

- **Model Results**



# **PROPOSED ALTERNATIVES FOR STORMWATER IMPROVEMENTS**

# PROPOSED ALTERNATIVES FOR STORMWATER IMPROVEMENTS

- **Regional Alternatives**
  - Swale Restoration Program
  - Inlet Maintenance Program
  - Pipe Repair Program
  - Outfall Maintenance Program



Figure 1: Sheet Flow

# PROPOSED ALTERNATIVES FOR STORMWATER IMPROVEMENTS

## • Local Alternatives

**Bougainvilla Drive**

**Poinciana Street**

**Pavilion Area**

**El Mar Drive (North)**

**El Mar Drive (South)**

**Alleyways**

**West Tradewinds Avenue**

**Flamingo Avenue**

**Hibiscus Avenue**

**Datura Avenue**

**East Tradewinds Avenue**

**Harbor Drive**

**Terramar Drive**



**Figure 4: Neighborhood Flooding**

# CONCLUSIONS



## CONCLUSIONS

- **Summary**
- **Cost Estimate**



**QUESTIONS ?**